

IN THE CLAIMS:

1 – 6. (canceled)

7. (currently amended) A method of performing audio synthesis in a portable environment, wherein source sample data is processed by a processing unit to generate synthesized audio samples, the method comprising the steps of:

providing an interpolation function wherein source monaural sample data is accessed and interpolated to generate one or more interpolated monaural samples based on the source monaural sample data;

providing a filter function wherein at least one of the interpolated monaural samples is filtered to generate a filtered interpolated monaural sample;

providing a gain function wherein the filtered interpolated monaural sample is processed to generate at least a left and a right sample; wherein the left and the right sample together may subsequently be processed to create a stereophonic field.

8. (currently amended) A method of performing MIDI-based synthesis in a portable environment, wherein a MIDI synthesis function is called to process MIDI events by accessing a reduced-footprint soundbank to generate audio output, the method comprising the steps of:

providing a DLS-compatible soundbank comprised of two levels for a first desired sound; wherein a first level is associated with a first sample comprised of the initial sound of impact, and a second level is associated with at least a second sample comprised of a looping period of a stable waveform;

providing parameter data associated with the DLS-compatible soundbank relating the first sample to the first desired sound and to a plurality of additional sounds; and

wherein the DLS-compatible soundbank and associated parameter data occupy a smaller footprint than otherwise would be occupied if the first sample were not related to the additional plurality of additional sounds.

9. (cancelled).

10. (new) The method of claim 7, wherein the interpolation function comprises a processing loop separate from the filter function or gain function.

11. (new) The method of claim 7, wherein the filter function comprises a low pass filter.

12. (new) The method of claim 7, wherein the gain function raises the amplitude of the

left and the right sample with differing gain values.

13. (new) The method of claim 7, wherein the gain function further generates additional channels of sound to create a multi-channel surround sound field.

14. (new) The method of claim 7, wherein the gain function generates at least one sample using an estimated difference value.

15. (new) The method of claim 14, wherein the gain function is comprised of an aggregated set of equations comprising a gained channel modifier.

16. (new) The method of claim 7, wherein the processing unit comprises a fixed-point processor.

17. (new) The method of claim 7, wherein the processing unit comprises a general purpose processor.

18. (new) The method of claim 8, wherein the first sample and the second sample begin to sound at the same point in time.

19. (new) The method of claim 8, wherein the parameter data is comprised of filter, envelope, or low frequency oscillator effect parameters.

20. (new) The method of claim 8, further comprising the steps of:

generating a music data file at a first node;

transmitting the music data file from the first node to at least one second node;

receiving the music data file at the second node;

extracting musical definition data from the music data file at the second node, wherein the musical definition data provides information regarding a data structure and data for musical parameters in accordance with the data structure;

processing the musical definition data, wherein music is generated at the second node in accordance with the data structure, the musical parameters, and the MIDI synthesis function;

playing the generated music at the second node;

generating a modified music data file at the second node; and

transmitting the modified music data file to the first node, wherein modified music is generated at the first node based on the modified music data file.